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Long COVID: What we know keeps expanding Dr. Stephanie Paulmeno, DNP, RN, NHA, CPH, CCM, CDP PUBLIC HEALTH EDUCATION SPECIALIST

Greenwich, 9-13-22: Because COVID-19 itself has only had a short history with us, less than three years; the known duration of *Long-COVID* symptoms is pretty short. We do not yet know how long the symptoms of Long-COVID will actually turn out to be as time goes on. What we have learned already from survey, scientific studies, and from the accounts of people suffering with this syndrome, is that its symptoms are broad and they impact many bodily systems and functions. They are being seen in people with mild symptoms as well as in those who suffered severe cases. These symptoms include persistent "brain fog" that disrupts clear thinking, enduring fatigue, loss of appetite that not unsurprisingly sometimes is accompanied by weight loss along with other gastro-intestinal symptoms such as abdominal distress, nausea and diarrhea. Loss of taste and smell are frequently reported and identified in studies. The distinctive COVID pneumonia, which looks like fiber glass or cotton candy is also being seen on diagnostic imaging tests in people after their acute COVID infection has passed (Tedeschi, 2022) (Phend, 2022). Others report headaches or a persistent cough (CDC, 2022). Also being observed and reported in scientific journals are recently recognized inflammatory issues that impact many body systems through what is called autonomic neuropathy. In the case of long-COVID, this is a result of inflammatory damage to the nerves that control our automatic bodily functions (i.e.: blood pressure, breathing, sweating, temperature control, exercise intolerance, aspects of digestion, bladder functions and even arousal) (Mayo Clinic, 2022). A recent study looking at this inflammatory process in the post-COVID months and years focused on people who had no previous cardiac pathology before becoming infected with COVID-19; after their infections, however, diagnostic tests showed cardiac dysfunction that included a persistent rapid rise in heartrate with even minimal exertion, difficulty breathing, and chest pain that could sometimes be radiating down the left arm, as is often seen in heart attacks. Patients with long-COVID, however, who are showing these cardiac symptoms, are also having other signs indicative of mild, but diffuse heart inflammation (DePeau-Wilson, 2022). While changes in the structure of their hearts were rare, this study identified abnormal biomarkers that are suggestive of heart damage and dysfunction.

What is telling is that all these study-participants had no pre-COVID cardiac abnormalities, but after their COVID infection, 73% of them showed mild but diffuse myocardial (heart muscle) inflammation and symptoms.

In another study, or rather a federal survey, over 40% of adults who responded noted that they had previously had COVID-19. The US Census Bureau's *National Center for Health Statistics* (NCHS) had added questions to the census survey to assess the prevalence of post-COVID-19 conditions (long-COVID), in our population. This nation-wide survey is considered to be the preeminent source of the nation's important benchmark surveys. It has been on-going for over 80 years (census.gov). This massive U. S. study identified that almost one in five (19%) of those who had contracted COVID-19 still had symptoms of long-COVID 3-months later, the survey's look-back period (CDC, 2022). Results of the CDC's *Household Pulse Survey* had several interesting findings:

- One out of every 13 U.S. adults has long-COVID symptoms 3-months after their illness that they did not have before they had COVID.
- About 3 times more adults 50-59 years old currently had long-COVID symptoms than did those 80 plus.
- Long-COVID is more prevalent in women than in men (9.4% vs. 5.5%).
- Long-COVID is more prevalent in Hispanic adults (almost 9%) than in non-Hispanic Whites (7.5%) and Blacks (6.8%), and over double the percentage of non-Hispanic Asian adults (3.7%)
- Bisexual and transgender adults (7.5%) were more likely to have long COVID symptoms than adults of other sexual orientations and gender identities.
- The prevalence of long COVID symptoms was different between different states.

Another scientific study-finding of interest (DePeau-Wilson, 2022) was that people with high pre-COVID levels of psychological distress were linked with an increased risk for developing long-COVID symptoms. These identified psychological stressors were depression, anxiety, worry about COVID, and feeling lonely.

We would love to have clear evidence that being vaccinated is a sure-fire way to avoid getting Long-COVID, because it is so debilitating over a prolonged time, but the jury is still out on that. Several studies suggest that vaccination lowers the risk of getting Long-COVID from 15% to over 80% (Sibonney, 2022). Dr. Leora Horwitz, a professor of *Population Health and Medicine* at *NYU's Grossman School of Medicine* notes in that same article that a person is more likely to have long COVID if they have a more severe disease presentation, and that we have ample evidence that vaccination reduces the severity of disease. That is what the vaccines were intended to do. Dr. Horwitz adds that we now also do have quite a lot of evidence that vaccination does reduce your risk of long-COVID, probably because it reduces your risk of severe disease.

Clearly we are still learning more about the impact of COVID-19, in all its variations as time goes on, so stay tuned to your valid, evidence-based sources for accurate public health information on all aspects of COVID-19; vaccinations, tests, and treatments:

• Centers For Disease Control and Prevention (DCC)

https://www.cdc.gov/coronavirus/2019-ncov/

https://www.cdc.gov/media/releases/2022/p0811-covid-guidance.html

• Connecticut Department of Public Health:

https://portal.ct.gov/DPH/Public-Health-Preparedness/Main-Page/DPH-COVID19-Resources-and-Guidance

Greenwich Department of Health: COVID-19:

https://www.greenwichct.gov/575/Health-Department

References:

CDC (n. a.) (2022). Nearly One in Five American Adults Who Have Had COVID-19 Still Have "Long COVID". *New Data From the Household Pulse Survey*; CDC/National Center for Health Statistics. Retrieved from https://www.cdc.gov/nchs/pressroom/nchs press releases/2022/20220622.htm

DePeau-Wilson, M. (2022). Long COVID Risk Factors May Include Loneliness, Depression, Stress:

Psychological distress linked to higher risk of post-COVID symptoms than physical conditions. Infectious Disease; MedPage Today. Retrieved from

https://www.medpagetoday.com/infectiousdisease/longcovid/100584

Mayo Clinic Staff. (n. a.)(2022) Autonomic Neuropathy. Mayo Clinic. Retrieved from

 $\underline{https://www.mayoclinic.org/diseases-conditions/autonomic-neuropathy/symptoms-causes/syc-20369829\#:$

Tedeschi, V. (2022). How Do You Live With COVID? One Doctor's Personal Experience. *MEDSCAPE MEDICAL NEWS*. Interview of Anne Peters, MD In Medscape. Retrieved from https://www.medscape.com/viewarticle/979892

Phend, C. (2020) Post-COVID Heart Problems Are Real, Despite Study Corrections. Infectious Disease; COVID-19. *MedPage Today*. Retrieved from https://www.medpagetoday.com/infectiousdisease/covid19/88263

Phend, C. (2022).Inflammation a Culprit in Long COVID Heart Problems: Prospective study illuminates mechanisms of lingering heart issues after mild COVID-19. Infectious Disease; Long COVID. *MedPage Today*. Retrieved from https://www.medpagetoday.com/infectiousdisease/longcovid/100597

Sibonney, C. (2022). How Well Do Vaccines Protect Against Long Covid? WebMD Health News, In *WebMD*; Lung Disease and Respiratory Health. Retrieved from https://www.webmd.com/lung/news/20220808/how-well-do-vaccines-protect-against-long-covid